

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CALLAWAY GOLF COMPANY,)	
)	
Plaintiff,)	
)	
v.)	Civ. No. 06-091-SLR
)	
ACUSHNET COMPANY,)	
)	
Defendant.)	

Thomas L. Halkowski, Esquire of Fish & Richardson P.C., Wilmington, Delaware.
Counsel for Plaintiff. Of Counsel: Frank E. Scherkenbach, Esquire of Fish and
Richardson P.C., Boston, Massachusetts; Roger A. Denning, Esquire of Fish and
Richardson P.C., San Diego, California.

Richard L. Horwitz, Esquire and David E. Moore, Esquire of Potter Anderson & Corroon
LLP, Wilmington, Delaware. Counsel for Defendant. Of Counsel: Joseph P. Lavelle,
Esquire, Kenneth W. Donnelly, Esquire, and Brian A. Rosenthal, Esquire of Howrey
LLP, Washington, D.C.

MEMORANDUM OPINION

Dated: November 10, 2008
Wilmington, Delaware


ROBINSON, District Judge

I. INTRODUCTION

Callaway Golf Company (“plaintiff”) filed this action against Acushnet Company (“defendant”) on February 9, 2006, alleging infringement of U.S. Patent Nos. 6,506,130 (“the ‘130 patent”), 6,503,156 (“the ‘156 patent”), 6,210,293 (“the ‘293 patent”), and 6,595,873 (“the ‘873 patent”) (collectively, “the Sullivan patents”). (D.I. 1) Plaintiff alleged that defendant’s Titleist® Pro V1® brand golf balls embody the technology claimed in one or more claims of the asserted patents. (*Id.* at ¶¶ 17-21) The parties filed motions for summary judgment. (D.I. 197, 200, 201, 213, 215) On November 20, 2007, the court issued its claim construction decision (D.I. 345) and issued its memorandum opinion on the summary judgment motions (D.I. 347), in which it granted plaintiff’s motions for summary judgment of no anticipation and for breach of contract, denied defendant’s motions for summary judgment of invalidity and no breach of contract, and denied defendant’s motion for partial summary judgment that U.S. Patent No. 4,274,637 to Molitor (“Molitor ‘637”) was incorporated by reference into a particular piece of prior art. Prior to trial, defendant stipulated that its Pro V1® golf balls infringe claims 1, 4 and 5 of the ‘293 patent, claims 1-3 of the ‘156 patent, claim 5 of the ‘130 patent, and claims 1 and 3 of the ‘873 patent, and that its Titleist® Pro V1x® and Pro V1*® golf balls infringe all of the foregoing claims, with the exception of claim 1 of the ‘293 patent. (D.I. 367) A jury trial was held between December 5 and 14, 2007 on the issue of validity of each of the asserted claims, due to obviousness. The jury returned a verdict that each asserted claim was valid but one – claim 5 of the ‘293 patent – which it found invalid. (D.I. 399) Currently before the court are several motions: defendant’s

motion for judgment as a matter of law (“JMOL”) or, in the alternative, for a new trial (D.I. 409); plaintiff’s motion for a permanent injunction (D.I. 411); and defendant’s motion to stay any permanent injunction issued by this court pending appeal (D.I. 440). The court has jurisdiction over these issues pursuant to 28 U.S.C. §§ 1331, 1338(a) and 1400(b).

II. BACKGROUND

A. Technology and Patents at Issue

As discussed in the court’s previous opinion (D.I. 347), this case involves golf ball technology. Golf balls are typically identified as two-piece or three-piece balls. Two-piece balls have a core, which is either solid or “wound,” and an outer layer. A core that is considered solid is made of rubber and can be one solid piece or multiple layers. A wound core is made of elastic windings wrapped around either a solid or liquid-filled center. Three-piece balls have an additional layer covering the core, so that the ball is characterized as having a core, an inner cover layer and an outer cover layer.

The challenge faced by golf ball designers has been to create a ball that is both capable of traveling great distances and of achieving the desired “feel,” or spin. Historically, balls would have to be very hard in order to achieve distance when struck by a fast-moving driver. To achieve spin, however, balls had to be softer so that they would better grip to the face of angled clubs such as irons. The patents at issue present “dual personality” balls that achieve a marriage of these diametrically-opposed objectives.

Michael J. Sullivan is the sole named inventor on each of the ‘130, ‘156, ‘293,

and '873 patents in suit (collectively, the "Sullivan patents"). The Sullivan patents have substantially identical specifications. Each of the underlying (continuation) applications were filed in 1999 (the '293 patent) and 2001 (the '130, '156, and '873 patents); all claim priority to U.S. Patent Application No. 08/070,510, filed June 1, 1993. The Sullivan patents issued to Spalding Sports Worldwide, Inc. ("Spalding") in April 2001 (the '293 patent) and in 2003.

The Sullivan patents each claim a multi-layer golf ball comprising a core, an inner cover layer made of a low acid ionomer, and an outer cover layer made of polyurethane.¹ The claims differentiate between the hardness and thickness of these layers. Claim 1 of the '293 patent claims:

1. A golf ball comprising: a core; an inner cover layer having a Shore D hardness of 60 or more molded on said core, said inner cover layer having a thickness of 0.100 to 0.010 inches, said inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and an outer cover layer having a Shore D hardness of 64 or less molded on said inner cover layer, said outer cover layer having a thickness of 0.010 to 0.070 inches, and said outer cover layer comprising a relatively soft polyurethane material.

Claim 4 of the '293 patent is also an independent claim, which reads:

4. A multi-layer golf ball comprising: a spherical core; an inner cover layer having Shore D hardness of about 60 or more molded over said spherical core, said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid and having a modulus of from about 15,000 to about 70,000 psi; and an outer cover layer having a Shore D hardness of about 64 or less disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball, said outer cover layer comprising polyurethane based material.

Claim 5 of the '293 patent is dependant on claim 4, and also requires that the "inner

¹Claims 1 and 2 of the '130 patent do not require that the outer cover layer include polyurethane. These claims were not at issue in the present suit.

cover layer has a thickness of about 0.100 to about 0.010 inches and said outer cover layer has a thickness of about 0.010 to about 0.070 inches, said golf ball having an overall diameter of 1.680 inches or more.”

By way of contrast, claim 1 of the ‘156 patent claims:

1. A golf ball comprising: a core; an inner cover layer disposed on said core, said inner cover layer having a Shore D hardness of at least 60, said inner cover layer comprising a blend of two or more low acid ionomer resins, each containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and an outer cover layer disposed on said inner cover layer, said outer cover layer having a Shore D hardness of about 64 or less, a thickness of from about 0.01 to about 0.07 inches, and comprising a polyurethane material.

Claims 2 and 3 of the ‘156 patent are dependant on claim 1. Claim 2 adds the limitation that the “outer cover layer has a thickness of from about 0.01 to about 0.05 inches”; claim 3 increases these same thickness ranges to “about 0.03 to about 0.06 inches.”

Claim 5 of the ‘130 patent reads as follows:

5. A multi-layer golf ball comprising: a spherical core; an inner cover layer having a Shore D hardness of about 60 or more molded over said spherical core, said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid and having a modulus of from about 15,000 to about 70,000 psi; an outer cover layer having a Shore D hardness of about 64 or less molded over said spherical intermediate ball to form a multi-layer golf ball, the outer layer comprising polyurethane based material.

Finally, plaintiff asserted two independent claims of the ‘873 patent, claims 1 and 3, which are reproduced below.

1. A golf ball comprising: a core; an inner cover layer disposed on said core, said inner cover layer having a thickness of from about 0.100 to about 0.010 inches, said inner cover layer comprising a blend of two or more ionomer resins, at least one of which contains no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and an outer cover layer disposed on said inner cover layer, said outer cover layer having a thickness of 0.010 to 0.070 inches, and said outer cover layer comprising a polyurethane material, wherein

said golf ball has an overall diameter of 1.680 inches or more, said inner cover layer having a Shore D hardness of at least 60, and said outer cover layer having a Shore D hardness of less than 64.

3. A multi-layer golf ball comprising: a spherical core; an inner cover layer having Shore D hardness of at least 60 disposed on said spherical core, said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid and having a modulus of from about 15,000 to about 70,000 psi; and an outer cover layer having a Shore D hardness of about 64 or less disposed about said inner cover layer and defining a plurality of dimples to form a multi-layer golf ball, said outer cover layer comprising a polyurethane based material and said outer cover layer having a thickness of from about 0.010 to about 0.070 inches.

C. Products

Plaintiff and defendant have both had success selling multi-layer golf balls.

Plaintiff markets several balls embodying the patented technology, including the Callaway Golf® Rule 35®, the CTU 30®, Callaway Golf® HX®, Ben Hogan®, Strata®, Tour Ace®, and Top-Flite® balls. Defendant markets and sells golf balls under the Titleist® brand, including the Titleist Pro V1®, Pro V1x®, and Pro V1*® series of balls that defendant stipulated infringe one or more of the Sullivan patents.

D. Trial

Defendants, having the burden of proof, presented their invalidity case to a jury between December 5 and 14, 2007. In its case-in-chief, defendant called several witnesses: (1) Mr. Jerry Bellis, defendant's Executive Vice President of Sales and Marketing; (2) Mr. William Morgan, defendant's Senior Vice President of Research and Development for golf balls; (3) Mr. Jeff Dalton, defendant's Vice President of Intellectual Property; (4) Mr. James Proudfit, inventor of U.S. Patent No. 5,314,187 ("Proudfit '187"), a critical prior art reference in the case (by deposition); (5) Mr. Sullivan, inventor

of the Sullivan patents, who has been employed with defendant since 2000; (6) Mr. Scott White, Callaway's Director of Marketing (by deposition); and (7) Mr. Joseph Nauman, defendant's Chief Legal Officer. Defendant also called its expert witness, Dr. Robert J. Statz, a retired du Pont Ph.D. polymer chemist, who testified, *inter alia*, that the Sullivan patents were obvious in view of Proudfit '187 in view of either U.S. Patent No. 4,674,751 to Molitor et. al. ("Molitor '751") or U.S. Patent No. 5,334,673 to Wu ("Wu"), and that the Sullivan patents were obvious in view of the Wilson Ultra Tour Balata golf ball in combination with either Molitor '751 or Wu. Plaintiff thereafter called several rebuttal witnesses: (1) Mr. Tom Kennedy, plaintiff's Senior Vice President of Intellectual Property Development; (2) Mr. Mike Yagley, plaintiff's Vice President of Business Innovations (and former Vice President of Product Management for Callaway golf balls); (3) Mr. William Burke, defendant's Chief Financial Officer (by deposition); (4) Mr. Edmund Hebert, defendant's Senior Manager of Product Development for advanced concepts (by deposition); (5) Ms. Mary Louise Bohn, defendant's Vice President of Advertising and Communications (by deposition); (6) Mr. Chris Cavallaro, defendant's Senior Product Development Manager responsible for the Pro V1® family of products (by deposition); and (7) Mr. Dennis Nesbitt, named inventor on prior art golf ball patents (by deposition). Plaintiff also presented the testimony of its own expert, Dr. William Risen, a Ph.D. chemist at Brown University who has consulted with plaintiff and its predecessor on golf ball applications for 18 years. Dr. Risen rebutted Dr. Statz's testimony. At the close of the evidence, the jury returned a verdict that each asserted claim was valid but one – claim 5 of the '293 patent – which it found invalid. (D.I. 399)

III. LEGAL STANDARDS

A. Motion for Judgment as a Matter of Law

To prevail on a renewed motion for judgment as a matter of law following a jury trial under Federal Rule of Civil Procedure 50(b), the moving party “must show that the jury’s findings, presumed or express, are not supported by substantial evidence or, if they were, that the legal conclusions implied [by] the jury’s verdict cannot in law be supported by those findings.” *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1348 (Fed. Cir. 1998) (quoting *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984)). “‘Substantial’ evidence is such relevant evidence from the record taken as a whole as might be acceptable by a reasonable mind as adequate to support the finding under review.” *Perkin-Elmer Corp.*, 732 F.2d at 893. In assessing the sufficiency of the evidence, the court must give the non-moving party, “as [the] verdict winner, the benefit of all logical inferences that could be drawn from the evidence presented, resolve all conflicts in the evidence in his favor, and in general, view the record in the light most favorable to him.” *Williamson v. Consol. Rail Corp.*, 926 F.2d 1344, 1348 (3d Cir. 1991); *Perkin-Elmer Corp.*, 732 F.2d at 893. The court may not determine the credibility of the witnesses nor “substitute its choice for that of the jury between conflicting elements of the evidence.” *Id.* In summary, the court must determine whether the evidence reasonably supports the jury’s verdict. See *Dawn Equip. Co. v. Kentucky Farms Inc.*, 140 F.3d 1009, 1014 (Fed. Cir. 1998).

B. Motion for a New Trial

The decision to grant or deny a new trial is within the sound discretion of the trial court and, unlike the standard for determining judgment as a matter of law, the court

need not view the evidence in the light most favorable to the verdict winner. See *Allied Chem. Corp. v. Darflon, Inc.*, 449 U.S. 33, 36 (1980). Federal Rule of Civil Procedure 59(a) provides, in pertinent part:

A new trial may be granted to all or any of the parties and on all or part of the issues in an action in which there has been a trial by jury, for any of the reasons for which new trials have heretofore been granted in actions at law in the courts of the United States.

New trials are commonly granted in the following situations: (1) where the jury's verdict is against the clear weight of the evidence, and a new trial must be granted to prevent a miscarriage of justice; (2) where newly-discovered evidence surfaces that would likely alter the outcome of the trial; (3) where improper conduct by an attorney or the court unfairly influenced the verdict; or (4) where the jury's verdict was facially inconsistent. See *Zarow-Smith v. N.J. Transit Rail Operations*, 953 F. Supp. 581, 584 (D.N.J. 1997) (citations omitted). The court, however, must proceed cautiously and not substitute its own judgment of the facts and assessment of the witnesses' credibility for the jury's independent evaluation. Nevertheless,

[w]here a trial is long and complicated and deals with a subject matter not lying within the ordinary knowledge of jurors a verdict should be scrutinized more closely by the trial judge than is necessary where the litigation deals with material which is familiar and simple, the evidence relating to ordinary commercial practices. An example of subject matter unfamiliar to a layman would be a case requiring a jury to pass upon the nature of an alleged newly discovered organic compound in an infringement action.

Lind v. Schenley Indus. Inc., 278 F.2d 79, 90-91 (3d Cir. 1960).

IV. DISCUSSION

A. JMOL of Invalidity

It was defendant's burden to prove obviousness at trial by clear and convincing evidence, defined to the jury as "evidence that produces an abiding conviction that the truth of a factual contention is highly probable." The jury having declined to invalidate the Sullivan patents,² defendant must now demonstrate that the verdict of nonobviousness was not supported by substantial evidence. That is, defendant must show the absence of facts necessary to support a verdict of nonobviousness, such that no reasonable jury could conclude that defendant failed to meet its high burden of proof. Such a showing is nearly unattainable in view of the fact that plaintiff presented its own rebuttal expert, Dr. Risen, who testified regarding both the scope of the prior art and the lack of a motivation to combine, a question of fact. See *Group One Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297, 1304 (Fed. Cir. 2006) ("Expert testimony of a lack of motivation to combine and the use of hindsight by opposing experts constitutes substantial evidence of nonobviousness.") (quoting *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1334 (Fed. Cir. 2002) (internal quotations and brackets omitted)). Notwithstanding, the court will briefly analyze plaintiff's evidence of nonobviousness.

1. Proudfit '187 in view of Molitor '751 or Wu

a. All limitations present

Plaintiff argues that there is no indication that Proudfit '187 combined with either Molitor '751 or Wu would be understood by a person of skill in the art to provide a polyurethane cover material having a Shore D hardness of 64 or less. A Shore D hardness value is not expressly contained in any of these references. With respect to

²The verdict of invalidity with respect to dependant claim 5 of the '293 patent is discussed *infra* in the context of inconsistent verdicts.

Molitor '751, defendant relies on a disclosure of a "Shore C" hardness value of 72-76,³ which it asserts corresponds to a Shore D hardness of less than 64. (D.I. 417 at 9; DTX-11 at col. 7. ll. 27-29) With respect to Wu, defendant argued at trial that the Wu polyurethane measured at a Shore D hardness of 48 to 50 off the ball (D.I. 424 at 493:23-494:3), the Titleist® Pro V1® used a polyurethane cover having a Shore D hardness of 56 taken "on the ball"⁴ (*id.* at 467:15-18), and Dr. Statz testified that, because the Titleist® Pro V1® had a slightly thicker polyurethane cover than the cover layer disclosed in Proudfit '187, a person of ordinary skill in the art would expect a Shore D hardness of around 56, and less than 64, for the cover of the claimed combination (D.I. 426 at 618:12-619:4).

Absent any direct evidence of a Shore D hardness of less than 64 in any of the asserted references, the jury's verdict of validity is not surprising. For its Molitor '751 argument, defendant relied on two "comparison" charts containing both Shore C and Shore D hardness values. (PTX-804; DTX-8 at CW0309061) One of these charts was submitted to the PTO by plaintiff for the purpose of traversing a 35 U.S.C. § 112, first paragraph rejection during the prosecution of the '873 patent. (DTX-8 at CW0309061)

³Molitor '751 discloses "an improved golf ball cover useful in making balls, particularly two-piece balls" (DTX-11, col. 1, ll. 11-15), which "refers primarily to balls consisting of a molded core and a cover, but also includes balls having a separate solid layer beneath the cover" (*id.* at col. 3, ll. 7-9). A table is provided containing "finished ball data" for several samples. "Samples 7, 8, and 10 constitute preferred embodiments, with a Shore C hardness within the range of 72-76." (*Id.*, col. 7. ll. 27-29) "[O]ther materials may be included in the cover in addition to the essential urethane and ionomer resins . . . provided the cover is formulated to have the requisite Shore C hardness." (*Id.*, col. 7, ll. 35-39)

⁴The court declines defendant's invitation to reconsider its claim construction ruling and grant JMOL on that ground. (D.I. 417 at 27-29)

Notwithstanding, both “comparison” charts expressly state that they “[are] not and cannot be used as a conversion [tool].” Defendant admits that “no simple, linear relation exists between Shore C and Shore D measurements and a direct conversion from C to D cannot be done with [a] chart.”⁵ (D.I. 417 at 14) Defendant’s argument is that “[w]hile we may not know if 72C ‘converts’ exactly to 50D or 51D, an artisan knew from the chart that the range 72-76C would be less than 60 Shore D.” (*Id.*) Mr. Sullivan testified that a Shore C hardness of 65 is less than 64 on the Shore D scale, as evidenced by the specification’s use of the phrase “Shore D hardness of about 45 (*i.e.*, Shore C hardness of about 65).” (D.I. 427 at 802:24-803:8; DTX-1 at col. 3, ll. 52-53) Dr. Statz testified that, according to the charts, a Shore C of 72-76 correlated to a Shore D hardness of about 55. (D.I. 426 at 600:23-602:3)

Plaintiff presented rebuttal evidence that the material underneath the cover layer influences the Shore D measurement when taken on the ball.⁶ Therefore, “a skilled artisan would not have thought that a Molitor ‘751 [polyurethane] cover would exhibit

⁵Mr. Dalton agreed that attempting a Shore C to Shore D conversion would not be expected “to be nearly as accurate” as a direct Shore D measurement. (D.I. 424 at 515:25-516:4) Mr. Kennedy testified for plaintiff that a straight correlation is not possible. (D.I. 428 at 1018:6-15) Mr. Risen testified similarly. (*Id.* at 1162:8-24)

⁶Mr. Dalton admitted on cross that thin ball covers are “more influenced by what’s underneath them than thicker covers”; what’s underneath the layer you are measuring can influence the hardness measurement. (D.I. 424 at 516:10-24) One of defendant’s patents, issued in 2005, states that “[h]ardness, when measured directly on a golf ball (or other spherical surface) is a completely different measurement and, therefore, results in a different hardness value [than that for a flat slab or button]. This difference results from a number of factors including, but not limited to, ball construction (*i.e.*, core type, number of core and/or cover layers, etc.), ball (or sphere) diameter, and the material composition of adjacent layers. It should also be understood that the two measurement techniques are not linearly related[.]” (PTX-604 at col. 10, ll. 14-23)

the same hardness when used as the outer cover of a Proudfit-type ball as it did when used as the single cover of a 2-piece ball, let alone exhibit the hardness as claimed in the patents-in-suit.” (D.I. 455 at 12) Plaintiff does not point to affirmative evidence tending to demonstrate that a Shore C measurement of 72-76 corresponds to a Shore D measurement greater than 64. (*Id.* at 14) It was not plaintiff’s burden to do so, however. On this record, the jury could have found defendant’s evidence regarding the presence of the Shore D hardness limitation in the prior art fell short of clear and convincing, insofar as: (1) the prior art did not contain any Shore D hardness values; (2) the tables themselves contained disclaimers on their use as conversion tools; and (3) hardness values vary based on the number and nature of the inner layers, and from the plaque to “on the ball.”

b. Motivation to combine and reasonable expectation of success

Even if the jury agreed with plaintiff that a person of ordinary skill in the art would have generally interpreted the prior art to disclose a Shore D hardness of 64 or less, the jury could have reasonably concluded that a person of ordinary skill in the art would not have been motivated to put a polyurethane cover on the ball of Proudfit ‘187 with any expectation that such a combination would yield an “on the ball” Shore D hardness of 64 or less.

Plaintiff presented evidence that it was known in the industry that there were significant problems with the Molitor ‘751 cover material. Dr. Risen testified that Molitor ‘751 was embodied by the Spalding Tour Edition® golf ball, which had a polyurethane and ionomer blend cover. (D.I. 428 at 1148:11-1149:14) Spalding replaced this cover

with a different Surlyn® ionomer blend because it was a “big problem.” (*Id.*) Dr. Statz admitted on cross that “[p]eople had looked at all these resins for years,” and a Spalding ball with Molitor ‘751 (polyurethane/ABS⁷) cover, called the Executive®, did not work. (D.I. 427 at 704:7-705:20; 733:13-734:15 (“It broke. It was brittle. It was too hard and too stiff.”)) In the 1980s, Dr. Statz helped Spalding develop a replacement cover, which was a blend of ionomers (with no polyurethane). (*Id.* at 705:21-706:22) Dr. Statz testified that “it wasn’t a failed cover because of the urethane, it was a failed cover because of the blend.” (*Id.* at 706:21-22) Notwithstanding, Dr. Statz did not look to a polyurethane cover solution. Similarly, Mr. Proudfit testified that putting a polyurethane cover on his three-piece golf ball had never occurred to him. (D.I. 424 at 530:9-19)

There are thousands of golf ball patents. (D.I. 423 at 177:13-18) The jury heard testimony that it took plaintiff three years and over \$170 million, with the assistance of 25 to 40 designers, to design and launch its Rule 35® ball; defendant spent a “period of years” developing the Pro V1®. (D.I. 428 at 1026:17-1027:11; 1048:9-14; D.I. 424 at 427:12-17)

Mr. Kennedy testified that there are thousands of materials (within several families of products) that can be used to make a ball.⁸ (D.I. 427 at 937:12-938:8) Further, in Mr. Kennedy’s experience, golf ball designers cannot predict “what performance will result from a particular combination of materials,” so products must be

⁷Acrylonitrile butadiene styrene, a common thermoplastic.

⁸Mr. Dalton acknowledged that there is a “fairly large” number of materials that can be used. (D.I. 424 at 510:13-15)

made and tested. (*Id.* at 938:9-12; 941:15-944:21) Mr. Yagley testified that small changes in “cover thickness and cover hardness and core composition would make a big change in how the golf ball performed.” (D.I. 428 at 1022:15-18) The relationships between the materials and the layers of materials are “extremely complex,” as is the evaluation of performance. (*Id.* at 1024:2-14) Mr. Proudfit testified that developing a ball is “trial and error, not predictable . . . in my opinion it’s not a science.” (D.I. 424 at 530:20-24) Mr. Nesbitt stated that, in his experience as a golf ball designer, he found that developing a ball was “[n]ever predicable”; “You don’t know until you try. . . You play around in the lab. You make examples, and you test and see if it does what you think it’s going to do. If it doesn’t, then you go back and make modifications.” (D.I. 428 at 1128:25-1129:9) Dr. Risen also testified that the art is unpredictable; the effect of changes on the ultimate performance cannot be predicted with any certainty. (*Id.* at 1146:22-1147:7)

As for defendant’s witnesses, Mr. Sullivan agreed that the art is “challenging.” (D.I. 427 at 815:18-24) Mr. Cavallaro testified similarly. (D.I. 428 at 1115:11-19) (Golf ball design is not predictable, as “just changing one particular material, one material may perform differently than another material, totally out of the realm of the design that you’re looking to achieve.”)) Mr. Dalton affirmed that, for certain types of materials, “even a small change in the materials that you use to make the golf ball can have a big consequence on the performance of the golf ball” (D.I. 424 at 511:23-512:6); finding the right combination of materials to achieve a predetermined performance goal is “a challenging task.” (*Id.* at 512:20-25) Dr. Statz acknowledged that “different combinations of core size and inner cover thickness and outer cover thickness will lead

to wildly different performance.”⁹ (D.I. 426 at 660:1-5)

Additionally, Dr. Risen testified that he reviewed the prior art and reached the opposite conclusion of Dr. Statz on obviousness. (D.I. 428 at 1141:8-1143:13) Dr. Risen outlined the import of various pieces of prior art and the knowledge of persons of ordinary skill in the art at the time of the invention. With respect to Molitor ‘751, Dr. Risen stated that there was no disclosure of Shore D hardness, that the Shore C hardness values disclosed could not be converted to Shore D values, and that all of the examples in that patent are two-piece balls. (*Id.* at 1159:11-1162:24) Dr. Risen further stated that there was no motivation to combine Proudfit ‘187 and Molitor ‘751.¹⁰ (*Id.* at 1168:5-1170:5) Dr. Risen testified that Wu discloses a two-piece golf ball and a wound

⁹Plaintiff’s counsel impeached Dr. Statz with his expert report, citing a quote that, to make a multi-layer golf ball with a polyurethane cover, a “huge amount of experimentation” and decision-making would be required to choose the right combination of materials. (D.I. 426 at 659:4-9) In response, Dr. Statz backtracked, stating only that “how much [experimentation] that would be, I don’t know until you start.” (*Id.* at 659:10-15)

¹⁰Defendant preserved its objection that Dr. Risen’s testimony of “no motivation to combine” was outside the scope of his expert report. The court finds defendant’s arguments on this issue frivolous. As an initial matter, Dr. Risen’s report amply supports the concise testimony given at trial. (D.I. 443, ex. E at ¶¶ 22, 254 (“the fact that no one succeeded in making a urethane-over-ionomer three-piece ball before Sullivan strongly suggests that persons of skill in the art either did not think to do so, or did not think such an effort would be worth pursuing”), 255-56, 258 (“even the most skilled golf ball designers either did not expect any benefit from such a design, did not think the construction was possible, or did not consider the combination at all”), 278 (“At the very least, persons of skill in the art evidently did not expect this construction to improve performance as much as it does; if they had, someone certainly would have undertaken the effort to implement such a design.”) Secondly, obviousness was the only issue tried in this case. Plaintiff had one expert. The prejudice to defendant by the expert’s conclusion of “no motivation to combine,” precisely the opposite of what is required to prove obviousness in defendant’s case in chief, is difficult to appreciate under these circumstances.

ball, not a multi-layer ball having an inner cover layer with the claimed properties, and contains no disclosure of a Shore D hardness value for a cover layer. (*Id.* at 1163:16-1165:10) He also stated that there was no motivation to combine Proudfit '187 and Wu. (*Id.* at 1170:5-13)

Finally, plaintiff presented evidence on secondary considerations of nonobviousness.¹¹ The infringing Pro V1® is undisputedly successful. In addition to plaintiff's documents admitted at trial, which evidence a wholesale "paradigm shift" in the market following the introduction of the Pro V1®,¹² Mr. Bellis testified that the Pro V1® is the most preferred and played ball by tour professionals and average-skill golfers. (D.I. 424 at 275:24-276:8 ("I think one of [the] major reasons for [its] success is

¹¹"[S]econdary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *KSR Int'l Co. v. Teleflex Inc.*, --- U.S. ---, 127 S.Ct. 1727, 1734 (2007) (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)).

Plaintiff was required to present a prima facie case that a nexus existed between the patented feature and the commercial success of the product(s) embodying the patented invention. Defendant stipulated to infringement in this case and, having done so, it became defendant's burden to rebut plaintiff's prima facie showing that the success of the Pro V1® was attributable to the patented invention. See *Demaco Corp. v. F. Von Lagsdorff Licensing Ltd.*, 851 F.2d 1387, 1393 (Fed. Cir. 1988) (Plaintiff "is not required to prove as a part of its prima facie case [of a nexus between the patented feature and the claimed success] that the commercial success is *not* due to factors other than the patented invention. It is sufficient to show that the commercial success was of the patented invention itself. A requirement for proof of all of the negative of all imaginable contributing factors would be unfairly burdensome[.]").

¹²*E.g.*, PTX-722; PTX-723; PTX-1195 ("[T]he speed at which this all took place is unprecedented, especially as it related to increasing capacity to meet the demand. I think it is the most massive paradigm shift ever seen in the golf ball category, and certainly the most intense and accelerated one in any product category I've ever witnessed." (George Sine, defendant's Vice President of golf ball marketing and strategic planning) (2001))

its total performance or excellent performance across many different areas[.]”)) Mr. Morgan acknowledged that the patented features contribute to the performance of the Pro V1®. (PTX-1121; D.I. 424 at 436:14-23 (ionomer casing for speed enhancement and spin control); 437:17-438:8 (polyurethane cover for control and imparting spin)) Dr. Risen testified that the Pro V1® satisfied the long-felt need in the industry for a ball having the favorable characteristics of both distance balls and wound balls. (D.I. 428 at 1176:15-1177:11)

2. Wilson Ultra Tour Balata¹³ ball in view of Molitor ‘751 or Wu

Defendant asserts that it presented ample clear and convincing evidence at trial that the Wilson Ultra Tour Balata ball that was on sale in 1993 had all of the features of the asserted claims with the exception of a polyurethane cover layer, and that it would have been obvious to use a polyurethane cover layer as disclosed in Molitor ‘751 or Wu. (D.I. 417 at 16) Defendant claims that JMOL is appropriate because its evidence was wholly uncontroverted by plaintiff at trial. (*Id.*) Plaintiff does not point to any of its own evidence in this regard. (D.I. 455 at 18-20) Rather, plaintiff asserts that defendant did not meet its burden to establish that the Ultra Tour Balata ball had an inner cover layer comprising a blend of low-acid ionomers, at least one of which was a low-acid ionomer, as required by the Sullivan patents. Dr. Statz testified that he learned that the Ultra Tour Balata had this ionomer blend through discussions with Mr. Proudfit when visiting the Wilson manufacturing facility – not through public information. (D.I. 426 at 700:11-703:19) The Ultra Tour Balata ball packaging included the Proudfit ‘187 patent

¹³Generally, balata is a latex used as a cover material for golf balls. It is not exceptionally durable.

number, but claim 1 of that patent requires only an "ionomer resin," as compared to a blend. (D.I. 429 at 1289-90) Finally, plaintiff reiterates its arguments regarding the lack of a motivation to combine and a reasonable expectation of success in view of known problems with polyurethane covers of the original Tour Edition® ball.

In response, defendant highlights test data showing that the Ultra Tour Balata ball satisfies all of the claimed properties except for the polyurethane cover. (D.I. 465 at 7) There is no indication that this information would have been available to persons of ordinary skill in the art; conversely, there is no indication that persons of ordinary skill in the art could not replicate these results if motivated to do so. Defendant points to no testimony by Dr. Statz regarding why a person of ordinary skill in the art would have been motivated to combine the Ultra Tour Balata ball with the teaching of Molitor '751 or Wu. (D.I. 417 at 16 (citing D.I. 426 at 594:13-595:24; 609:5-8)) Dr. Statz only testified that the combination of references would yield the patented balls. (*Id.*) Thus, notwithstanding the fact that Dr. Risen presented no rebuttal testimony on this point,¹⁴ defendant's case was deficient as a matter of law. Plaintiff's evidence regarding the unpredictability of the art and the former failure of the Tour Edition® polyurethane-blend cover also support the verdict.

3. Conclusion

Based upon the foregoing, the court finds that substantial evidence supports the jury's verdict of nonobviousness. Of course, defendant presented evidence from which

¹⁴Defendant provided deposition testimony wherein Dr. Risen stated that his expert report did not address the combination of the Wilson Ultra Tour Balata ball and either Molitor '751 or Wu. (D.I. 417, ex. 1 at 243-44)

a jury could have found a motivation to combine. The court need not address this evidence, insofar as motivation to combine is an issue of fact and the jury in this case, confronted with conflicting (expert) testimony on the issue, was free to resolve the conflict in favor of plaintiff. See *Group One Ltd.*, 407 F.3d at 1304. In addition, other substantial evidence supports the verdict of nonobviousness in this case. With respect to the first asserted combination of references, it is possible that the jury found that defendant failed to show a combination ball, based on Proudfit '187 and Molitor '751 or Wu, that had a polyurethane cover layer with a Shore D hardness of less than 64. Notwithstanding, nearly all of the witnesses in this case agreed that golf ball design involved a certain degree of uncertainty and use of the "guess and check" method in development – evidence which cuts against a motivation to combine and/or reasonable expectation of success. In view of this, and plaintiff's evidence of secondary considerations of nonobviousness, a reasonable jury could have found that defendant failed to meet its clear and convincing burden on invalidity based on both asserted combinations of references.

B. Motion for a New Trial¹⁵

Defendant argues that a new trial is warranted because the jury's finding that defendant claim 5 of the '293 patent is invalid is irreparably inconsistent with its finding

¹⁵The court does not address defendant's arguments that a new trial is warranted based on the court's prior evidentiary rulings, specifically, that the court: (1) improperly excluded test balls defendant made from the teachings of the prior art and accompanying data; (2) erred in admitting evidence regarding defendant's "veneer concept" and the Hebert patent; (3) erred in excluding the prosecution history of a continuing application of the '873 patent (the 2004 *Ex Parte Sullivan* decision); and (4) erred by excluding the copending reexamination record from evidence. The court affirms its prior rulings.

of validity with respect to the remainder of the asserted claims, including independent claim 4 upon which claim 5 depends.¹⁶

The parties' joint proposed verdict form in this case contained only the question of whether any of the claims at issue were invalid for obviousness; specific limitations were not addressed. (D.I. 390 at 3) Although the parties' joint proposed jury instructions contained an explanation of how to read independent and dependent claims, there was no explanation that a dependant claim cannot stand invalid if the claim upon which it depends is held to be valid. (D.I. 391 at 29) Instead, the parties jointly proposed an instruction (adopted by the court) that each claim is a "separate statement of the patented invention" to be considered "individually." (*Id.* at 28) The parties did not object to the jury instruction that "[t]he validity of a patent claim, therefore, is independent of the validity of other claims in the patent."¹⁷ (D.I. 394 at 17;

¹⁶Although "dependent or multiple dependent claims shall be presumed valid even though dependent on an invalid claim," 35 U.S.C. § 282, the converse is not true; a dependent claim cannot be invalid while the (broader) claim from which it depends is valid. See 35 U.S.C. § 112, ¶ 4 ("[A] claim in dependent form shall contain reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitation of the claim to which it refers."); *Ormco Corp. v. Align Tech., Inc.*, 498 F.3d 1307, 1319 (Fed. Cir. 2007) ("Because claims 10 and 17 were found to have been obvious, the broader claims 1 and 11 must also have been obvious."); see also *L&W, Inc. v. Shertech, Inc.*, 471 F.3d 1311, 1318 (Fed. Cir. 2006) (acknowledging inconsistency between verdict that independent claim 7 was valid but dependent claim 10 invalid) (holding that both parties waived objections to the inconsistency under Sixth Circuit waiver law); *Internatic Inc. v. Lamson & Sessions Co.*, 273 F.3d 1355, 1368 (Fed. Cir. 2001) (acknowledging inconsistency of verdicts that dependent claims were not invalid for obviousness where the jury had found the independent claims non-obvious) (affirming district court's JMOL resolving inconsistent verdicts). Accordingly, plaintiff has not argued that the verdict is consistent.

¹⁷The court notes that the Federal Circuit Bar Association's model jury instructions (January 2008) provide a comparable instruction with respect to

D.I. 429 at 1257:4-1259:6)

The verdict form, with the jury's responses denoted by an "X," provided in its entirety as follows.

1. Has Acushnet proven, by clear and convincing evidence, that any of the following claims of U.S. Patent No. 6,210,293 (the '293 patent) is invalid due to obviousness?

"Yes" is a finding for Acushnet. "No" is a finding for Callaway.

(A)	Claim 1	Yes_____	No <u>X</u> _____
(B)	Claim 4	Yes_____	No <u>X</u> _____
(C)	Claim 5	Yes <u>X</u> _____	No _____

2. Has Acushnet proven, by clear and convincing evidence, that any of the following claims of U.S. Patent No. 6,503,156 (the '156 patent) is invalid due to obviousness?

"Yes" is a finding for Acushnet. "No" is a finding for Callaway.

(A)	Claim 1	Yes_____	No <u>X</u> _____
(B)	Claim 2	Yes_____	No <u>X</u> _____
(C)	Claim 3	Yes_____	No <u>X</u> _____

3. Has Acushnet proven, by clear and convincing evidence, that any of the following claims of U.S. Patent No. 6,506,130 (the '130 patent) is invalid due to obviousness?

"Yes" is a finding for Acushnet. "No" is a finding for Callaway.

(A)	Claim 5	Yes_____	No <u>X</u> _____
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4. Has Acushnet proven, by clear and convincing evidence, that any of the following claims of U.S. Patent No. 6,595,873 (the '873 patent) is invalid due to obviousness?

"Yes" is a finding for Acushnet. "No" is a finding for Callaway.

(A)	Claim 1	Yes_____	No <u>X</u> _____
(B)	Claim 3	Yes_____	No <u>X</u> _____

1. Waiver

As a threshold matter, plaintiff asserts that defendant waived its objection to the

infringement: "[A] dependent claim includes all of the requirements of any of the claims to which it refers, plus additional requirements of its own. Therefore, if you find that an independent claim is not infringed . . . then you must also find that any claim that depends from it is not infringed." No parallel model instruction is provided with respect to the validity of dependent claims.

inconsistency of the verdicts because it did not object prior to the jury's dismissal.¹⁸ (D.I. 455 at 39-44) Defendant's counterargument in this regard is that the verdict in this case was a special verdict, not a general verdict, which carries no contemporaneous objection rule pursuant to Rule 49(a). (D.I. 465 at 17) However, neither party ever requested a "special verdict" form, posed particular factual inquiries for the jury, or otherwise discussed with the court the desire for a "special verdict" prior to trial; the court's verdict form, accordingly, was entitled only "verdict" (not "special verdict") and contained no "written finding[s] upon each issue of fact." Fed. R. Civ. P. 49(a). The verdict was a multi-part general verdict form. *Accord Richardson-Vicks Inc. v. Upjohn Co.*, 122 F.3d 1476, 1479 & n.1 (Fed. Cir. 1997); *Railroad Dynamics, Inc. v. A. Stucki Co.*, 727 F.2d 1506, 1515-16 & Appx. A (Fed. Cir. 1984). That the general verdict was not accompanied by "answers to written questions" "on one or more issues of fact that the jury must decide," as contemplated by Rule 49(b), does not change the fundamental nature of the verdict. *See gen. Railroad Dynamics*, 727 F.2d at 1516 ("That the jury spoke specifically with respect to each defense is in this case of benefit to the courts and to the parties.").

¹⁸Plaintiff also argues that defendant "failed to take action that would have expressly defined for the jury the relationship between claims 4 and 5." Plaintiff's waiver argument in this regard is flawed, insofar as there was no error in the court's instructions. The fact that the instructions could have been more precise in describing the relationship between independent and dependent claims is not an appropriate ground to premise a waiver argument. *See Marra v. Philadelphia Housing Authority*, 497 F.3d 286, 312 n. 21 (citing *Kosmynka v. Polaris Indus., Inc.*, 462 F.3d 74, 84-85 (2d Cir. 2006)) ("Waiver of an objection to an inconsistent verdict has been found . . . when the inconsistency was **caused by** an improper jury instruction or verdict sheet and there was no objection to either the instruction or verdict sheet prior to submission of the case.") (emphasis added)).

That being said, the Third Circuit has indicated that an objection on the record is probably required to preserve an objection based on inconsistent general verdicts. See *Marra*, 497 F.3d at 312 n.21 (citing *Simmons v. City of Philadelphia*, 947 F.2d 1042, 1056-57 (3d Cir. 1991) ("In this circuit, it probably is necessary, as it is in the majority of the circuits, to raise prior to the jury's dismissal an objection based on the inconsistency of the answers to interrogatories supporting a general verdict rendered under Rule 49(b)."); *Loughman v. Consol-Pennsylvania Coal Co.*, 6 F.3d 88, 104 n.15 (3d Cir. 1993) ("While [Judge Becker's statement about Rule 49(b) waiver in *Simmons*] may well be correct . . . it is, by its own language, a tentative conclusion. . . [It] cannot, in any case be considered a holding of the court[.]")). After the verdict was read and prior to the dismissal of the jury, plaintiff raised the issue and called a sidebar to discuss the verdict, at which time the court declined to send the jury back to re-deliberate, and the jury was thereafter excused. (D.I. 430 at 1427:11-1428:13) Although it is clear that defendant never objected to the verdict on the record, the court is sensitive to its argument that it was essentially "beaten to the punch" by plaintiff's counsel and did not feel the need to reiterate the same concerns following the court's decision. (D.I. 465 at 22)

2. Merits

The court must first consider whether there are "means to reconcile" the inconsistent verdict. See *Mycogen Plant Science v. Monsanto Co.*, 243 F.3d 1316, 1326 (Fed. Cir. 2001). In this regard, plaintiff points out that claims 4 and 5 of the '293 patent, claim 3 of the '873 patent, and claim 5 of the '130 patent do not require a "blend

of low acid ionomers” for the inner layer of the golf ball, while the remaining 5 of the asserted claims do. (D.I. 455 at 46) Plaintiff groups the claims in a manner in which the verdict is consistent with respect to the 5 “blend” claims, but remains inconsistent with respect to the four “non-blend” claims; this does not give the court sufficient means to reconcile the verdicts.

The court notes that inconsistency, alone, is insufficient to warrant a new trial absent an affect on defendant's substantial rights. See Fed. R. Civ. P. 61; *Williamson v. Consolidated Rail Corp.*, 926 F.2d 1344, 1353 (3d Cir. 1991) (“[N]ew trials because the verdict is against the weight of the evidence are proper only when the record shows that the jury’s verdict resulted in a miscarriage of justice or where the verdict, on the record, cries out to be overturned or shocks our conscience.”) (citation omitted). In this case, defendant has stipulated that it infringes each of the Sullivan patents; three of which were held valid by the jury without reservation.

“Inconsistent jury verdicts are an unfortunate fact of life in law, and should not, in and of themselves, be used to overturn otherwise valid verdicts.” *Boyanowski v. Capital Area Intermediate Unit*, 215 F.3d 396, 407 (3d Cir. 2000). The Third Circuit has acknowledged that “in certain circumstances, [such as one “obviously representing a compromise”,] a court retains the authority . . . to allow an apparently inconsistent verdict to stand.” *Mosley v. Wilson*, 102 F.3d 85, 91 (3d Cir. 1996) (quoting *City of Los Angeles v. Heller*, 475 U.S. 796, 805 (1986) (Stevens, J., dissenting) (additional citations omitted)). The court does not go so far as to find that the jury’s verdict was an “obvious” compromise in this case.

Notwithstanding, the Federal Circuit, applying the Sixth Circuit's waiver rule, has allowed a facially inconsistent verdict relating to dependent claims to stand following a failure to timely object to the verdict. See *L&W, Inc.*, 471 F.3d at 1314 (affirming the portion of the judgment holding independent 7 valid and dependant claim 10 invalid);¹⁹ see also *Bradford Co. v. Jefferson Smurfit Corp.*, No. Civ. A. 2000-1511, 2001 WL 35738792 (Fed. Cir. Oct. 31, 2001) (unpublished) (affirming district court's denial of JMOL based on inconsistent general verdict, where jury had found independent claims 11 and 21 valid and infringed and dependant claims 12 and 17 anticipated and obvious).²⁰

The present patent trial lasted seven days and was the culmination of nearly two years of the parties' preparation and expense. In view of the lack of harm to defendant on this record, or any evidence of "manifest injustice" compelling a new trial, and with the understanding that, almost as often as not, the Federal Circuit may reverse or remand any of the underpinnings upon which trial in this matter proceeded, the court will allow the verdict to stand and the appeal to go forward without further delay. Put another way, the court declines to allow defendant another bite at the apple absent

¹⁹Although the *L&W* Court characterized the verdict in that case as a "special verdict," the Court stated that the "distinction [did] not make a difference," as in either the case of a special or general verdict "the waiver rule promotes judicial efficiency by requiring that the trial court be given a chance to let the original jury resolve any inconsistency in its responses." *Id.* at 1319.

²⁰Notably, Bradford had renewed its JMOL motion that insufficient evidence supported the jury's verdict that the dependant claims were invalid. The Federal Circuit instructed: "On remand, the district court should now consider this renewed JMOL motion on the merits and decide whether to enter JMOL for Bradford or to let the otherwise illogical result stand." *Bradford*, 2112 WL 35738792 at *8.

more compelling circumstances.

C. Motion for a Permanent Injunction

1. Permanent injunction standard

In *eBay Inc. v. MercExchange, L.L.C.*, 126 S.Ct. 1837 (2006) (vacating and remanding *MercExchange, L.L.C. v. eBay Inc.*, 401 F.3d 1323, 1339 (2005)) (hereinafter “*eBay*”), the Supreme Court overruled the Federal Circuit’s longstanding “general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances.” Permanent injunctions in patent cases must be based on a case-by-case assessment of the traditional equitable factors governing injunctions. *Id.* at 1839. That is, to be awarded a permanent injunction, a plaintiff must demonstrate: “(1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.” *Id.* “[T]he decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards.” *Id.* at 1841.

2. Background

The pertinent analysis is well-framed by a discussion of the parties’ histories in the multi-layer golf ball market. The Sullivan patents were originally obtained by Spalding. During bankruptcy, Spalding’s golf ball business became an independent

company (Spalding Holdings Company) that was acquired by plaintiff for \$175 million in 2003; this business became plaintiff's subsidiary, The Top-Flite Golf Company. The Sullivan patents were among the intellectual property acquired by plaintiff in the deal.

Prior to 2003, plaintiff, a market leader in golf drivers, began building its own golf ball business. Plaintiff introduced testimony at trial that it developed the Rule 35® ball at the cost of over \$170 million. (D.I. 428 at 1048:9-14) The Rule 35® three-piece ball used the Sullivan inventions; plaintiff states that it "addressed Spalding's assertions of infringement by purchasing Spalding's golf ball assets[.]" (D.I. 412 at 9 n.3) The Rule 35® was introduced to professionals in January 2000, and to the public in February 2000. (D.I. 428 at 1046:4-5) It was not the first three-piece ball to market, however. Both Nike and Bridgestone introduced three-piece golf balls to their tour players in 1999. (D.I. 423 at 243:16-244:2) Notwithstanding, the Rule 35® made a "big splash" in the industry; it was used to win one of the first Professional Golfers' Association ("PGA") tournaments in 2000. (D.I. 428 at 1046:6-13) Many tour professionals were playing wound balls at the time. (D.I. 414 at ¶9)

Professional golfers typically have contracts to play the golf balls of a certain manufacturer. Players' contracts typically begin the first of the year, corresponding to the start of the PGA schedule in the United States. (D.I. 414 at ¶ 10; D.I. 427 at 920:16-23) A player under contract with a manufacturer must play that manufacturer's balls exclusively. Players under contract with another golf ball company in 2000 were not at liberty to play the Rule 35® ball on tour.

According to plaintiff's calculations, 25.8% of balls used on the 2000 Senior PGA Tour were the Rule 35® ball; this number increased to 39.7% in 2001. (D.I. 141 at ¶

12) On the women's side, 10.8% of the balls used on the 2000 LPGA tour were the Rule 35® ball, increasing to a high of 32.5% in 2002. (*Id.*)

The infringing Pro V1® was tested with tour professionals in October 2000. Public launch was in December 2000. (D.I. 423 at 216:10-12) By offering the Pro V1®, defendant was able to keep the majority of its contract players and thereby prevented them from switching to the Rule 35® when their contracts expired at year's end. (D.I. 413, ex. C at 47:9-12; D.I. 424 at 307:3-16) Forty-seven tour players used the Pro V1® at a PGA event in October 2000, including the winner. (D.I. 423 at 218:7-219:6) According to plaintiff, "[m]aintaining [defendant's] status as the number one ball on the professional tours was key to [defendant's] marketing of the Pro V1® through the pyramid of influence," a marketing strategy premised upon the assumption that the equipment choices of pro golfers influences the purchasing decisions of club pros, avid golfers, recreational golfers, and lastly beginner golfers at the bottom of the pyramid. (D.I. 412 at 15-16) According to plaintiff, defendant's pyramid of influence has resulted in plaintiff being excluded from many retailers altogether. Under defendant's "Titleist Exclusive Pro Shop" program, pro shops are awarded special incentives if they agree to carry and sell only defendant's Titleist® and Pinnacle®-branded golf balls. (D.I. 414 at ¶¶ 25-28)

By 2004, plaintiff had stopped making the Rule 35® ball in favor of another premium ball design, and admittedly stopped practicing the Sullivan patents. (D.I. 412 at 17 n.5) Plaintiff and defendant remain competitors in the three-piece ball market, which defendant currently dominates. Plaintiff calculates that by 2007, only 16.6% of the balls used on the Senior PGA tour and 15.9% of those used on the LPGA tour were

plaintiff's. (D.I. 414 at ¶ 12) The gravamen of plaintiff's argument is that defendant's infringement enabled its pyramid of influence with respect to the Pro V1® line of balls. Since 2000, Pro V1® balls have dominated the market and continued to gain market share. "[I]f the ball did not match the performance of the competition by utilizing the claimed inventions, [defendant's] pyramid of influence would have collapsed[.]" (D.I. 460 at 7) Defendant is currently the leading supplier of golf balls, having the highest percentage of golf balls on tour worldwide and in the United States. (PTX-1175 at AB0118089 (2006)) Plaintiff characterizes the lost opportunity to enhance its goodwill and brandy loyalty as irreparable. (D.I. 412 at 7)

3. Discussion

Courts awarding permanent injunctions typically do so under circumstances where plaintiff practices its invention and is a direct market competitor.²¹ This court has awarded permanent injunctions where the effects of defendant's infringement (on plaintiff) were direct and readily apparent from the available market data. See, e.g., *TruePosition Inc. v. Andrew Corp.*, No. Civ. A. 05-747, 2008 WL 2944657 at *25-26 (D.

²¹See, e.g., *Muniauction, Inc. v. Thomson Corp.*, 502 F. Supp. 2d 477, 482 (W.D. Pa. 2007) ("Plaintiff and defendants are direct competitors in a two-supplier market. If plaintiff cannot prevent its only competitor's continued infringement of its patent, the patent is of little value.") (granting permanent injunction); *Johns Hopkins Univ. v. Datascope Corp.*, 513 F. Supp. 2d 578, 586 (D. Md. 2007) (granting permanent injunction where infringing product was plaintiffs' "only competition" and "thus, its sale reduce[d] the [p]laintiffs' market share"); *Transocean Offshore Deepwater Drilling, Inc. v. GlobalSantaFe Corp.*, No. Civ. A. 03-2910, 2006 WL 3813778, *4 (S.D. Tex. Dec. 27, 2006) (granting permanent injunction requiring structural modifications to infringing deepwater drilling rigs where "the customer base for deep water drill rigs is small, and [defendant] has not only used [its] rigs equipped with the infringing structure to compete for the same customers and contracts as [plaintiff], but also to win contracts over competing bids from [plaintiff]").

Del. July 31, 2008) (irreparable harm found where plaintiff and defendant were the “only suppliers in a two-supplier market”).

Plaintiff and defendant are not the only manufacturers of multi-layer or three-piece golf balls.²² In addition, the record reflects that the golf ball industry is one in which licensing is prevalent. This is intuitive, considering that thousands of golf ball patents exist in an industry of a finite number of major market players. Not surprisingly, defendant focuses a great deal of attention on plaintiff’s prior licensing activities. Defendant has introduced evidence that plaintiff used defendant’s technology in its Rule 35® ball, which it obtained in a cross-license with defendant in 2001. (D.I. 437, ex. 19) Defendant states that it incorporated technology licensed from plaintiff in this deal into its Pro V1® ball. (D.I. 434 at 5-6) Plaintiff has also previously entered into a licensing agreement with Bridgestone to settle litigation. (D.I. 439, ex. 36) In August 2003, in anticipation of winning the bid for Spalding, plaintiff discussed licensing to defendant the entire Sullivan patent family²³ for \$10 million. (D.I. 435, ex. 9) Plaintiff concedes that it “would [have] entertain[ed] the possibility of a license” in this case, but asserts that this was in the context of a denial of infringement and an assertion of invalidity. (D.I. 460 at 1-2) In 2007, plaintiff licensed Bridgestone under two patents in the

²²Neither party has provided a list of all of the manufacturers of three-piece golf balls. The following companies manufacture USGA-approved three-piece balls in the United States in addition to plaintiff (including the Top-Flite division) and defendant: Bridgestone, Taylor Made Adidas Golf, Cromag, Tour Trade Golf, Inc., Dunlop Sports Group America, Ben Hogan Company, Dick’s Sporting Goods, NanoDynamics, Inc., Nike, Inc., King Par Corporation, Volvik, Inc., Golfsmith International, Inc., Srixon Sports USA, Inc., TSA Corporate Services, Inc., and Wilson Sporting Goods. See http://www.usga.org/equipment/conforming_golf_ball/gball_list.pdf.

²³All of the patents claiming priority to U.S. Application No. 08/070,510.

Sullivan family of patents. (D.I. 437, ex. 26 at 15)²⁴

Although plaintiff's willingness to forgo its patent rights (generally) for compensation may be inconsistent with the notion that money damages are inadequate,²⁵ it is certainly not a dispositive factor. The *eBay* court specifically cautioned against the application of categorical rules, classifications and assumptions in these analyses. 126 S.Ct. at 1840. In this regard, of utmost import in the context of evaluating irreparable harm and the adequacy of money damages is the nature of the competition between plaintiff and defendant in the three-piece golf ball market. A credible case can be made that, had defendant not launched the Pro V1® ball in late 2000, a large number of its tour players may have switched to the Rule 35® ball in January 2001. Defendant released the Pro V1® in late 2000 specifically to avoid this result.²⁶ A shift in tour players to the Rule 35® would have resulted in increased overall sales of the Rule 35® under the pyramid of influence. By launching "[t]he ball that's turning golf upside down" with its contracted professionals (PTX-1175 at AB0118078), defendant maintained the position of market leader.

²⁴U.S. Patents Now. 5,779,562 and 6,368,237, claiming priority to U.S. Application No. 08/070,510.

²⁵*See, e.g., Voda v. Cordis Corp.*, No. Civ. A. 03-1512, 2006 WL 2570614 at *6 (W.D. Okla. Sept. 5, 2006) (denying permanent injunction where plaintiff was a willing licensor, rejecting plaintiff's argument that "ongoing infringement will damage his relationship with [plaintiff's exclusive licensee]" as "simply the other side of the right-to-exclude coin").

²⁶An August 2001 article in *Golf Weekly* stated that, "[a]ccording to an industry executive who asked that his name not be used, Titleist® officials were particularly impressed with the new Callaway Rule 35® golf ball, and they told the research and development team to come up with something better in very short order." (PTX-1195)

Casey Alexander, special situations analyst for Gilford Securities in New York, reported in 2000 that defendant was the “most at-risk ball company” due to its entrenchment in the production of wound balls. (PTX-1195) Mr. Alexander characterized the launch of the Pro V1® to be a “business miracle” – allowing defendant to hold on to its business and also grow in the ball market.²⁷ (*Id.*) The Pro V1® captured market share so quickly that defendant accelerated its planned introduction by four months, and ceased production of its Tour Prestige® and Tour Balata® balls and cut back on production of its Professional® ball to divert resources to the production of the Pro V1®. (*Id.*) Mr. Wally Uihlein, defendant’s chairman and CEO, stated that “[t]he Pro V1® saved the company.” (PTX-723)

It is impossible to tell whether, absent the Pro V1® ball, plaintiff would have gained the momentum (via the Rule 35® ball) to become the market leader itself, or merely gained a more favorable position than it presently has.²⁸ This case presents the unique situation in which defendant, by its launch of an infringing product, gained market entry in a critical period where professionals were just making the switch from wound balls. Plaintiff was already a market leader of golf equipment, and was poised to

²⁷According to defendant’s records, Pro V1® and Pro V1x® sales accounted for 21.7% of all golf ball sales in the United States in 2006. (PTX-1175 at AB0118089) Due at least in part to its infringement, defendant maintained a relatively consistent leadership position, but its market share did increase between the years 1999 (44.5%) and 2006 (50.7%). (*Id.*)

²⁸Defendant emphasizes that plaintiff no longer manufactures the Rule 35® ball; plaintiff’s HX-Tour® and HX-Tour 56® balls are the only two designs currently on the market that embody the Sullivan technology at issue. (D.I. 428 at 1007:5-1008:22) The court does not find this factor dispositive, insofar as plaintiff’s current and future market position, reputation and good will would have been built on the back of its Rule 35® ball.

compete in the developing multi-layer ball market. History cannot be rewritten such that plaintiff expanded its customer base and improved its market position via its Rule 35® ball, and/or reaped the benefits of good will and reputation associated with manufacturing the leading golf ball during this critical time period.²⁹ Put another way, there is sufficient evidence of irreparable harm.

Similarly,

when an infringer saturates the market for a patented invention with an infringing product or damages the patent holder's good will or brand name recognition by selling infringing products, that infringer violates the patent holder's exclusionary right in a manner that cannot be compensated through monetary damages. This is because it is impossible to determine the portions of the market the patent owner would have secured but for the infringer's actions or how much damage was done to the patent owner's brand recognition or good will due to the infringement.

Commonwealth Scientific and Indus. Research Org. v. Buffalo Tech. Inc., 492 F. Supp. 2d 600, 605 (E.D. Tex. 2007). Future damages are informed by past damages, which are undeterminable to the extent that the harm to plaintiff's market position, good will and reputation is unknown.³⁰

²⁹The presence of additional market competitors does not alter this result.

³⁰That plaintiff retained a damages expert and submitted an expert report on damages (D.I. 286, ex. 1) is not, as defendant suggests, fatal to its claim for equitable relief. The court declines to issue a ruling that effectually discourages plaintiffs in patent litigation to retain experts and conduct damages discovery – in effect build its damages case – if injunctive relief is concurrently sought. To hold otherwise would condone irresponsible advocacy.

Contrary to defendant's assertion, the Federal Circuit's decision in *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363 (2008), does not compel a different result. The *Innogenetics* court stated that reasonable royalties awarded to plaintiff, which "include[d] an upfront entry fee that contemplates or is based upon future sales by [defendant] in a long term market" precludes a patentee's complaint that it will be irreparably harmed by future sales. *Id.* at 1380. No such royalty has been issued here; the issues of willfulness and damages were bifurcated from trial. The Federal Circuit's

With respect to the balance of hardships, if the court does not issue an injunction, defendant will become plaintiff's compulsory licensee, depriving plaintiff of its right to exclude. *See gen. Hybritech Inc. v. Abbott Labs.*, 849 F.2d 1146, 1456-57 (Fed. Cir. 1988). The harm that defendant would suffer is admittedlyly subtle – in 2002, defendant could transition from “a viable and relatively inexpensive” non-infringing alternative by changing the formulation of the inner cover layer, a feat that may be accomplished “in a matter of weeks” at a cost of \$0.005-\$0.006 per dozen. (D.I. 413, ex. P at ¶ 75 (expert report of William O. Kerr)³¹) Defendant asserts that it will be severely harmed “by requiring it to modify its normal cycle of new product introductions and introduce a new version of the Pro V1® outside of its normal product cycle.” (D.I. 434 at 37) Defendant suggests allowing it to infringe until the first quarter of 2009, when it plans to launch a new version of the Pro V1®. (*Id.* at 42) The court is not in the business of making defendants' infringements easier to unravel. *See Windsurfing Int'l Inc. v. AMF, Inc.*, 782 F.2d 995, 1003 n.12 (Fed. Cir. 1986) (“One who elects to build a business on a product found to infringe cannot be heard to complain if an injunction against continuing infringement destroys the business so elected.”). The court notes that the infringing balls are not defendant's only golf ball products, and defendant's

decision in *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293 (Fed. Cir. 2007), also cited by defendant, is equally inapposite, as that Court took issue with the district court's imposition of a royalty *sua sponte* after declining to issue an injunction.

³¹Plaintiff has provided only one page of this report, which is insufficient for the court to glean the full context of Dr. Kerr's statements. In its answering papers, defendant confirms that Dr. Kerr's testimony is accurate, but states that it is currently pursuing a different redesign option. (D.I. 464 at 8) That defendant has chosen an alternate path does not affect the viability of this option.

corporate parent, Fortune Brands, Inc., is a multi-billion dollar conglomerate.

Finally, with respect to the public interest, it is true that an injunction would disturb many golfers loyal to the Pro V1® brand, including professionals, who have about two months left on their 2008 contracts. Notwithstanding the inevitable disappointment to such golfers, removing the Pro V1® line of balls from commerce after 2008 does not implicate public health or safety concerns. There is no indication that other three-piece balls on the market could not fill the gap in demand. In short, there is insufficient evidence to counter the “strong public policy favoring the enforcement of patent rights” recognized by the courts. *PPG Indus., Inc. v. Guardian Indus. Corp.*, 75 F.3d 1558, 1567 (Fed. Cir. 1998). The court adopts plaintiff’s proposal allowing professional golfers to play the Pro V1® balls through the end of the 2008 calendar year.

4. Conclusion

For the aforementioned reasons, the court finds that plaintiff has made a sufficient showing on each of the four traditional factors. A permanent injunction shall issue by separate order.³² The court will enjoin the production and sale of Pro V1® products commencing January 1, 2009.

D. Motion for a Stay of Injunction Pending Appeal

By separate motion, defendant seeks a stay of injunctive relief pending review by

³²Defendant concurs with the language of the proposed injunction with exception to paragraphs 3 and 4, which require disposal of current inventory by retailers and notification to the industry by defendant. (D.I. 411-2) Paragraph 1 enjoins sales by retailers; how defendant effectuates the injunction and communicates such down its distribution chain is at defendant’s discretion. The court issues an order consistent with paragraphs 1 and 2 of plaintiff’s proposed order.

the Federal Circuit. Defendant's motion is procedurally necessary,³³ but unfounded. Defendant cites no authority supporting the proposition that a stay should issue by order of the district court. Defendant cites two cases in which the Federal Circuit, by motion in that Court, has elected to stay an injunction pending appeal. (D.I. 441 at 2, citing *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 228 Fed. Appx. 986 (Fed. Cir. 2007); *Nichols Inst. Diagnostics, Inc. v. Scantibodies Clinical Lab., Inc.*, 166 Fed. Appx. 487 (Fed. Cir. 2006)) It should come as no surprise that the court declines defendant's invitation to abandon its rulings to date, ignore the verdict of the jury, and find that an appeal "will likely succeed on the merits." (*Id.*) The court has failed to locate one instance in which a district court has issued a stay of its own order on such grounds. Defendant's motion (D.I. 440) is denied.

V. CONCLUSION

For the aforementioned reasons, defendant's motion for JMOL or, in the alternative, for a new trial (D.I. 409) is denied; plaintiff's motion for a permanent injunction (D.I. 411) is granted; and defendant's motion to stay the injunction pending appeal (D.I. 440) is denied. Appropriate orders shall issue.

³³Fed. R. App. P. 8(a)(1)(A) & (2)(A)(ii).